

Title (en)  
SEAL DEVICE

Title (de)  
DICHTUNGSVORRICHTUNG

Title (fr)  
DISPOSITIF D'ETANCHEITE

Publication  
**EP 1469238 B1 20140702 (EN)**

Application  
**EP 02781878 A 20021203**

Priority  
• JP 0212664 W 20021203  
• JP 2002012219 A 20020121

Abstract (en)  
[origin: EP1469238A1] A seal contact surface of a seal lip member and a protruding lip member of an end face seal are separated from each other and frictional heat generated at the seal lip member due to sliding motion is prevented from being transferred to the end face seal for softening the material, thus the seal capability is improved. A protruding lip member (3) provides a seal by making an angle to a seal surface (11B) of a seal ring (11) in radially outward a direction and a lip portion (15A) of a seal lip member (15) is disposed inside an inner diameter surface (11A) of the seal ring (11) for effecting a seal against a sealing object fluid. <IMAGE>

IPC 8 full level  
**F16J 15/3268** (2016.01); **F16J 15/34** (2006.01)

CPC (source: EP KR US)  
**F16J 15/32** (2013.01 - KR); **F16J 15/3228** (2013.01 - EP US); **F16J 15/324** (2013.01 - EP US); **F16J 15/3456** (2013.01 - EP US)

Designated contracting state (EPC)  
DE FR PT

DOCDB simple family (publication)  
**EP 1469238 A1 20041020; EP 1469238 A4 20050316; EP 1469238 B1 20140702**; CN 100380026 C 20080409; CN 1620569 A 20050525; JP 2003214541 A 20030730; JP 4180829 B2 20081112; KR 100896867 B1 20090512; KR 20040079419 A 20040914; PT 1469238 E 20140728; US 2004262845 A1 20041230; US 7090221 B2 20060815; WO 03062682 A1 20030731

DOCDB simple family (application)  
**EP 02781878 A 20021203**; CN 02828297 A 20021203; JP 0212664 W 20021203; JP 2002012219 A 20020121; KR 20047011251 A 20021203; PT 02781878 T 20021203; US 50190804 A 20040720